

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Richard E. Smalley, *et al.*  
Serial No.: 10/575,352  
Filed: January 31, 2008  
Title: Amplification of Carbon Nanotubes via Seeded Growth Methods  
Confirmation No: 9439  
Art Unit: 1736  
Examiner: Daniel McCracken

MAIL STOP: AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION OF JAMES M. TOUR UNDER 37 C.F.R. § 1.132**

1. My name is James M. Tour. I am over the age of eighteen (18) years and am of sound mind, have never been convicted of a felony, and am competent to testify herein. The matters set forth herein are within my personal knowledge and are true and correct.

2. I am an applicant and inventor of United States Patent Application No. 10/575,352, filed on January 31, 2008 (hereinafter the "Application"). The Application claims the benefit of United States Provisional Patent Application Nos. 60/511,175 (filed on October 14, 2003), 60/587,234 (filed on July 12, 2004), and 60/598,630 (filed on August 4, 2004). Richard E. Smalley, Robert H. Hauge, Andrew R. Barron, Howard K. Schmidt, W. Edward Billups, Christopher A. Dyke, Valerie C. Moore, Elizabeth Whitsitt, Robin E. Anderson, Ramon Colorado, Michael P. Stewart, and Douglas C. Ogrin are also co-inventors of the Application.

Dr. Richard E. Smalley is now deceased. Therefore, Ms. Irene M. Marek is included in the Application solely as the legal representative of Dr. Richard E. Smalley.

3. I am a co-author of the publication entitled "Electronic Structure Control of Single-walled Carbon Nanotube Functionalization" by Strano et al. Science, 301:2003, pp. 1519-1522. (hereinafter "Strano").

4. It is my understanding that the Examiner for the above Application has relied on various portions of Strano to reject the claims of this Application. Specifically, it is my understanding that the Examiner has rejected the claimed invention in the Application in view of Strano's alleged disclosure of selective chemistry that can be used to separate, deposit, or chemically link nanotubes of a particular electronic structure, and the use of functionalization to sort carbon nanotubes. It is also my understanding that the Examiner has indicated that the aforementioned disclosure appears on pages 1520 and 1522 of Strano.

5. Inventors Christopher A. Dyke, Robert H. Hauge, and Richard E. Smalley are also co-authors of Strano. However, Inventors Andrew R. Barron, Howard K. Schmidt, W. Edward Billups, Valerie C. Moore, Elizabeth Whitsitt, Robin E. Anderson, Ramon Colorado, Michael P. Stewart, and Douglas C. Ogrin were not included in the authorship of Strano because they had not made substantive contributions to the project disclosed in Strano.

6. Michael S. Strano, Monica L. Usrey, Paul W. Barone, Matthew J. Allen, Hongwei Shan, and Carter Kittrell are also co-authors of Strano. However, the above-mentioned co-authors at least did not contribute to the conception of the claimed invention in the Application.

7. With regard to Strano's alleged disclosure of any portions of the claimed invention, including Strano's disclosure set forth in Paragraph 4 of this Declaration, Strano describes my own work, the work of co-inventor Christopher A. Dyke, the work of co-inventor Robert H. Hauge, and the work of co-inventor Richard E. Smalley.

8. This declaration is filed under 37 CFR § 1.132 in support of the Application. The assertions in this declaration are made based on my training, experience and personal knowledge.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
James M. Tour

Date

16 Sept 2011